Questions & Answers Amoco Station #18698 COMM # 53590-2839-26-A BRRTS # 03-13-000432

- Question 1: In the first bulletpoint it is stated that a piezometer is to be located "approximately 200 feet northeast of PZ-1 (on the south side of Main Street)". The nearby Marathon gas station is an open LUST site. Could the well be located on the north side of Main Street near the intersection of Williamson Avenue to minimize the possibility of detecting contaminants (if any) from the Marathon LUST site? If any groundwater data has been collected as part of the Marathon investigation this data could be used for plume definition in this area.
 - Answer: The exact location of the groundwater quality monitoring wells must be proposed to, and approved by, the project manager prior to construction. The exact location may vary and will be determined through discussion with the project manager.
- Question 2: Several of the monitoring wells that are to be sampled have had free product (FP) in past rounds. If FP is encountered in wells that are scheduled to be sampled, should the wells still be sampled? If so what amount of FP should be the determining factor as to whether the wells are sampled or not (thick sheen, emulsified FP, measurable thickness, ect.)?
 - Answer: Measurable free product should be 2 inches or more, in order to be sampled for groundwater or not. If less than 2" FP, then use socks after bailing and collecting groundwater samples. Measure the amount of free product, if encountered, irregardless of thickness. Water elevation data can be collected despite the presence of free product at any rate.
- Question 3: It is required to reset/repair the well housing for GMOW-1S. Is this well paved over and/or will it have to be located with a metal detector?
 - Answer: The latest report submitted on behalf of the responsible party indicates that GMOW-1S appears to have been paved over and that it will need to be uncovered, and the well vault reset, to allow gauging, free product removal and groundwater quality sampling. There is no additional information at this time. Please take into account the effort required to accomplish this task in your bid.
- Question 4: In the reporting requirement, it is stated that the "Free product Characterization, Abatement, & Waste Disposal plan Report" should document the density and viscosity of the FP and determine the volume of FP present. Dose the bid require a laboratory analysis of the FP to determine quantifiable values for these parameters? What method would

be acceptable for determining the volume of FP (modeling software, etc.)?

Answer: The bid language does not stipulate a lab method for determination of density and viscosity of free product and determining an estimate of the volume of free product. Nor do we intend to proscribe a lab method or instrument.

Question 5: In the reporting requirement, it states that the FP report should be written after well installation and include suggested abatement measures based on FP measurements taken from the site. The fifth bulletpoint states that the bidder should conduct free product removal monthly for all wells with FP. Are the measurements required for inclusion in the FP report (and which must have agency approval) the same or more than the measurements required in the fifth bulletpoint? To be able to devise adequate FP abatement measures, several rounds of FP gauging data would need to be collected. For example, if monthly FP removal started in January after the new wells were installed, suggested FP abatement measurements could not be devised until March.

Answer: The consultant may choose the number of samples required to determine the most effective abatement measure at the site. However, that decision must be supported in the "Free Product Characterization, Abatement, & Waste Disposal Plan Report"; which requires Department approval.

Question 6: Please clarify the number of submittals (reports) required for this work scope? It appears that four are required (FP report, 2 semi-annual GW monitoring reports, and a closure report). However, if free product gauging data must be collected prior to an abatement plan being developed, then the FP report could be combined with the first semi-annual ground water monitoring report.

Answer: Four reports are required, as stated in the bid, if two are submitted at the same time, that's fine. The bid states four reports are needed to be a compliant bid response.

Question 7: It is stated that the public bid responses should include as a separate cost element all closure-related cost. Well abandonment is also to be included in this public bid. Should well abandonment cost be included in the separate closure cost, since well abandonment is related to case closure?

Answer: Yes, and it is set-up that way. Well abandonment costs are a contingency cost in the bid, the first item is for a damaged/destroyed/missing well only, if appropriate. Well abandonment for the site as a whole is a contingency item at time of closure, if appropriate, and not part of the total bid amount as indicated. See the table on Page 3.

Question 8: "Install two piezometers at depths consistent with existing site piezometers (excluding PZ-1D) and ideally screened at the bedrock interface. The wells should be located: (1) Approximately 200 feet northeast of PZ-1 (on south side of Main Street), and (2) approximately 300 feet northeast of PZ-3 (north or south of Commercial Avenue)."

Could you please clarify if the proposed piezometers are to be "screened at the bedrock interface" (which is approximately 20 feet bgs) or "at depths consistent with existing piezometers" (which is approximately 40 feet bgs).

Answer: The determining factor in construction of the two piezometers is that they be constructed similarly (at depths and with screened intervals, etc.) to existing piezometers at the site (excluding PZ-1D).